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CONSERVATIVES FOR RESPONSIBLE STEWARDSHIP

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BEFORE THE ARIZONA CORPORATION COMMISSION

April 15, 2019

COMMISSIONERS

BOB BURNS, CHAIRMAN
ANDY TOBIN
BOYD DUNN
JUSTIN OLSON
SANDRA D. KENNEDY

Arizona Corporation Commission

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Docket No. RU-00000A-18-0284

**RE: Upcoming Stakeholder Meeting on Possible Modification of
the Renewable Energy Standard and Tariff**

Dear Commissioners:

Conservatives for Responsible Stewardship (CRS) is a national grassroots organization of stewardship-minded conservatives, with more than 700 of its 14,000 members in Arizona. We applaud the Commission for considering increasing the renewable energy standard in Arizona, and for its justified resistance to Integrated Resource Plans (IRPs) that rely too heavily on natural gas generation.

CRS greatly appreciates the opportunity to provide comment on possible modification of the state's Renewable Energy Standard and Tariff (REST). **We strongly favor the Commission revising REST to reflect recent energy technology advances and new market realities.**

Currently, the price of electricity generated by new utility scale solar plants is significantly cheaper than electricity from coal and natural gas generation. This market reality is the new normal. Coal plants are getting more expensive to operate as they age and the price of natural gas is projected to double by 2030. By contrast, solar and wind power is expected to keep getting cheaper.

According to Lazard Asset Management, the average cost in North America of producing one megawatt-hour (MWh) of electricity from coal is \$102, and from gas is \$60. In comparison, that average production cost for solar is around \$50 per MWh, less than half the cost of coal generation and cheaper than gas. In Arizona and its neighboring states, the cost of solar is even lower.

For example, a new 30-megawatt solar plant near Page will sell power to the Central Arizona Project (CAP) for a mere \$24.99 per MWh, and a Tuscan Electric Power (TEP) solar plus storage plant is offering electricity for \$45 per MWh.

Electricity price examples for other new solar generation facilities include:

- *Nevada:* Sempra Copper Mountain \$21.55 per MWh, 8minutenergy Eagle Shadow Mountain \$23.76 per MWh. *Colorado:* Xcel Energy (59 solar + storage projects) \$36 per MWh.

With solar currently priced well below coal and natural gas, and still getting cheaper, **continuing to rely on more expensive coal and natural gas for 60 percent of the state's electricity would be a grave disservice to Arizona ratepayers.**

According to TEP comments to the Commission about the proposed Energy Modernization Plan (EMP), the 2020 to 2030 cost of electricity from the Four Corners and San Juan coal plants will be at, or greater than, \$80 per MWh. In its cost chart (Chart 5, page 12), TEP also projects power from new combined cycle gas plants to cost more than \$50 per MWh, while TEP projects solar power cost at only \$29 per MWh.

Because much of Arizona's coal-generated electricity is more than triple the price of new solar, it is in the overwhelming interest of ratepayers to quickly phase out the use of those expensive coal plants. As the cheapest source, solar is the most prudent option for replacing most of that that generation.

Although Arizona Public Service (APS) and other utilities seem enamored with new gas generation, from day one any new gas plants will also face a pronounced cost disadvantage when compared to solar or wind. It does not take a soothsayer to recognize that any new gas plants built in this state are likely to become stranded assets.

Increasing reliance on out-of-state natural gas, which is a globally marketed and priced, presents a huge risk to Arizonans—especially those on fixed or limited incomes. It makes them extremely vulnerable to gas price fluctuations—which are inevitable due to a myriad of factors, ranging from pipeline disruptions to increasing demand for LNG gas halfway around the world.

This is simply not an issue for solar and wind. Not just because of the price trend referenced earlier, but because most of renewable energy's cost is in up front technology, not fuel, and utilities purchase it via long-term fixed-price contracts. This insulates energy users from the price swings we often see with natural gas and other fossil fuels.

As appears to be its instinct, the Commission should avoid a future faced with the interests of the state's utilities, which want to maximize generating plant lifecycles, being at odds with the best interest of Arizona ratepayers.

Additionally, adding more diversity to the state's electricity mix is long overdue. Arizona has no significant natural gas reserves, yet gas generation accounts for almost a third of the state's electricity.

Like diversification in financial investments, diversification of energy choices is a conservative strategy for reducing risks, and building a secure economic foundation for the future. For Arizona, which has the greatest solar intensity in the nation, renewable energy and related technologies offer the greatest opportunity for such diversification.

A dramatic increase in the availability of cost effective energy storage now allows solar energy to adequately handle Arizona's peak loads and, as indicated above, provide night generation at prices that are cheaper than can be provided by new gas generation.

The surest and quickest way to achieve a diversified energy portfolio that takes full advantage of Arizona's unparalleled renewable potential is by increasing REST to reflect these new energy realities.

CRS recommends an annual ramp up of REST to achieve 50 percent renewable energy by 2030. Absent such deliberate and measurable progress, it will be very difficult to:

- 1) Keep electricity rates stable and low.
- 2) Prevent the construction of new gas plants that pose a high risk of becoming stranded assets.
- 3) Attain the EMP's goal of 80 percent renewables by 2050.

A strong renewable energy standard with clear benchmarks will also provide certainty for utilities and other Arizona businesses. It will also make this state significantly more energy independent. A specific carve-out for distributed generation would also be wise.

To be clear, **the need here is for a strong and enforceable standard, not a goal.** A standard provides the regulatory certainty required for long-term energy investments. Anything less does not. Relying only on an unenforceable goal would invite uneven progress among utilities and increase the odds of new gas generation being built.

It is worth noting that every state that borders Arizona, which includes Nevada, New Mexico, and California, have adopted aggressive renewable standards to take advantage of their strong renewable energy potential. In Nevada, the legislature recently passed a bill establishing a standard of 50 percent by 2030 with unanimous bipartisan votes in both houses.

Arizona runs a real risk of its ratepayers saddled with higher electricity rates due to overdependence on old expensive coal plants and increasingly expensive natural gas generation at a time when residents of neighboring states are enjoying the rate relief of a portfolio adequately diversified with cheap solar.

APS acknowledged the impact of renewables in lowering electricity prices in that 2017 IRP, stating that its customers may *"benefit from the low wholesale market prices being created by neighboring states with high renewable mandates."*

In addition to being a disservice to Arizona ratepayers, being behind the curve on renewables would put the state at a huge disadvantage in attracting businesses to locate here.

Also worth pointing out, is that a strong renewable energy standard will in no way impact the viability of the Palo Verde nuclear facility. One obvious reason is that, like solar and wind, the electricity produced from Palo Verde is cheaper than that produced from coal and gas generation. Another is that replacing the power produced by retiring the oldest and most expensive coal and gas facilities will not result in a surplus supply of power.

Regarding supply, it is noteworthy that in its 2017 IRP, APS would add more than 4,000 megawatts of new natural gas generation.

In the Commission's April 29 stakeholder workshop staff mentioned that some commissioners have suggested a need for some flexibility in a new renewable energy standard. We advise that such flexibility be limited to only minor extensions (months not years) of compliance deadlines for extenuating circumstances beyond a utility's control. Too much flexibility would undermine the certainty that a standard provides, result in missed targets, and cause uneven progress among utilities.

Additionally, CRS would like to see the some teeth added to the IRP process that gives commissioners the ability to approve or disapprove utility company IRPs.

Modifying REST to drive diversification with renewable energy and reduced reliance on coal and gas is the prudent and genuinely conservative energy path for Arizona.

We appreciate the opportunity to provide these comments and thank the Commission for considering our views.

Sincerely,

A handwritten signature in black ink, appearing to read "David Jenkins". The signature is fluid and cursive, with the first name "David" and last name "Jenkins" clearly distinguishable.

David Jenkins
President